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**Presidency University**

**Bengaluru**

**School Of Computer Science and Engineering & Information Science**

**End-Term Examinations, Aug 2024**

**Date**:05.08.2024

**Time**: 01.00PM -4.00PM

**Max Marks**: 100

**Weightage**: 50%

**Odd Semester**: 2023 - 24

**Course Code**:CSE233

**Course Name**: Cloud Computing

**Department:** CSE & SOIS

**Instructions:**

1. *Read the all questions carefully and answer accordingly.*
2. *Do not write any matter on the question paper other than roll number.*

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| **Q.No** | **Questions** | **Marks** | **CO** | **RBT** |
| 1 | 1. What are the two fundamental operations for data processing used in Hadoop. | 4 | CO1 | L1 |
| 1. Illustrate EC2 and S3 services of Amazon Web Service (AWS) | 6 | CO1 | L2 |
| 1. Analyze the differences between all the three delivery models with their advantages and disadvantages | 10 | CO1 | L3 |
| OR | | | | |
| 2 | 1. Why cloud is so popular now a days, explain in detail | 4 | CO1 | L1 |
| 1. Outline the similarities and differences between grid computing and cloud computing | 6 | CO1 | L2 |
| 1. In computing platforms and technologies, how many core technologies are available, explain in detail. | 10 | CO1 | L3 |

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| 3 | 1. What are the properties of criteria that need to be met by a virtual machine manager | 4 | CO2 | L1 |
| 1. Why are virtualized environments so popular today? | 6 | CO2 | L2 |
| 1. Discuss the different types of virtualization | 10 | CO2 | L3 |

OR

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| 4 | 1. Discuss the major components of the same with a neat diagram and explain its characteristics. | 4 | CO2 | L1 |
| 1. Illustrate about the Characteristics and benefits of Cloud Computing | 6 | CO2 | L2 |
| 1. *Elaborate each levels of virtualization which are implemented in Cloud Computing with neat diagram.* | 10 | CO2 | L3 |

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| 5 | 1. How does an audit monitor help organizations maintain compliance and security in the cloud? [Knowledge] | 4 | CO3 | L1 |
| 1. Elaborate with a neat diagram an alternative has been used to implement pay-per-use monitor as monitor agent. [Comprehension] | 6 | CO3 | L2 |
| 1. Your company has migrated critical applications to a cloud provider's platform. However, you've notice performance degradation during peak usage hours, impacting user experience. How would your adder this performance issue with the cloud provider based on the SLA? What metrics or performance target outlined in the SLA would you reference, and what steps would you take to ensure compliance with agreed-upon service levels? [Application] | 10 | CO3 | L3 |

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| 6 | 1. Identify the mechanism that is used to observe the runtime performance of cloud services. [Knowledge] | 4 | CO3 | L1 |
| 1. Identify which mechanism is a lightweight and autonomous software program responsible for collect in and processing IT resource usage and explain Three common agent-based implementation formats. [Comprehension] | 6 | CO3 | L2 |
| 1. Identify the mechanism used to collect data for networks and IT resources in support (or dictated by) regulatory and contractual obligations. Explain all the steps with a neat diagram.[Application] | 10 | CO3 | L3 |

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| 7 | 1. Write short notes on Cloud Sim Architecture. [Knowledge] | 4 | CO4 | L1 |
| 1. Describe how SaaS is inherited from laas with managed platform. Explain with its typical architecture [Comprehension] | 6 | CO4 | L2 |
| 1. How SaaS is Different from Traditional Software, Explain in detail with its benefits. [Application] | 10 | CO4 | L3 |

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| 8 | 1. List and explain some common cloud security mechanisms and technologies used to protect cloud environments. [Knowledge] | 4 | CO4 | L1 |
| 1. What are some cloud-native services and features that leverage Docker containers for deployment an orchestration? [Comprehension] | 6 | CO4 | L2 |
| 1. Recommend an AWS Cloud service based on specific requirements for scalable computing. [Application] | 10 | CO4 | L3 |

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| 9 | 1. In IT service on demand, what do we get from the cloud and What are the Criteria for a cloud service. | 4 | CO1 | L1 |
| 1. Discuss about Google App Engine and Manjrasoft Aneka, which are used in cloud computing. | 6 | CO1 | L2 |
| 1. The cloud deployment model identifies the specific type of cloud environment based on ownership, scale, and access, as well as the cloud’s nature and purpose. A national bank requires high security, privacy, and reliability cloud deployment services, allowing only authorized persons to access resources. Suggest the best suited deployment model for these requirements and discuss. List all the cloud deployment models and give a detailed note about them with their pros and cons. | 10 | CO1 | L3 |

OR

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| 10 | 1. Explain about the hypervisors and their types in virtualization. | 4 | CO2 | L1 |
| 1. Illustrate the main modules in VMM with neat sketches | 6 | CO2 | L2 |
| 1. Distinguish between Full Virtualization and paravirtualization in the Operating System. | 10 | CO2 | L3 |